NOTES ON SOME NEOTROPICAL GAME-BIRDS.

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For some years past we have paid considerable attention to investigations of the taxonomy and natural affinities of various neotropical game-birds, principally in connection with material acquired by the junior author for his collection now on deposit in Field Museum of Natural History, and hope to publish the results of our studies in a series of papers, of which the present one dealing with some species of the genus *Penelope* forms the first instalment. For the loan of material used in its preparation we wish to express our gratitude to Dr. F. M. Chapman and Mr. J. T. Zimmer, of the American Museum of Natural History, New York, and to Mr. W. E. Clyde Todd, of the Carnegie Museum, Pittsburgh. We are also under obligations to the authorities of the British Museum (Natural History) and the Museum d'Histoire Naturelle, of Paris, for the opportunity afforded the senior author to examine certain types preserved in these institutions.

Penelope argyrotis.

This group is immediately recognizable among its affines by having the rectrices largely tipped with cinnamon. It comprises three races:

(a) P. argyrotis argyrotis (Bonaparte).

Pipile argyrotis Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 875, 1856—Caracas (types in Paris Museum).

Penelope lichtensteinii Gray, P. Z. S. Lond., 28, p. 269, 1860—Venezuela (type in British Museum).

Penelope montana (Lichtenstein Ms.) Reichenbach¹ Tauben, p. 151, 1862—Venezuela (type in British Museum).

This form inhabits the subtropical zone of northern Venezuela, from the Caracas region² west to Mérida, and apparently ranges even into the Eastern Andes of Colombia.³

¹ The name *Penelope montana* was first published by Bonaparte (Compt. Rend-Acad. Sci. Paris, 42, p. 877, 1856), but as an absolute nomen nudum.

Beebe (Zoologica, 1, p. 72, 1909) lists the species from Cafio Colorado, in the Orinoco delta. We strongly doubt the correctness of this identification, however.

³ A "Bogotá" specimen has been recorded by Sclater and Salvin (P. Z. S. Lond., 1870, p. 528) and Ogilvie-Grant (Cat. Bds. Brit. Mus., 22, p. 501, 1893). Todd

Specimens have been examined from Caracas; Galipán, Cerro del Avila, Dept. Federal; La Cumbre de Valencia, Carabobo; and La Azulita, Mérida.

Doubts have been cast on the applicability of Bonaparte's name "argyrotis," since the diagnosis, "semblable à P. marail, mais la face encadrèe de blanc mat, plus ètendu et plus brillant sur la région des oreilles," was absolutely inadequate for its proper identification. The senior author has carefully examined at Paris the two original examples, both collected by Levraud in the vicinity of Caracas, and found them to agree with other birds from northern Venezuela in having the rectrices broadly tipped with cinnamon, the forehead, superciliaries and malar region strongly edged with silvery white, and the feathers of the upper back, wing coverts, foreneck and breast laterally margined with white. The pertinence of P. argyrotis to the present race is thus established beyond doubt.

(b) P. argyrotis colombiana Todd.

Penelope colombiana Todd, Anns. Carnegie Mus., 8, p. 213, 1912—Las Taguas, Santa Marta region, Colombia (type in Carnegie Museum); idem and Carriker, l. c., 14, p. 173, pl. 2, 1922—Santa Marta region.

Closely similar to *P. a. argyrotis*, but feathers of pileum narrower, apically slightly attenuated, dull grayish bronze and for their entire length very conspicuously edged with grayish white on both webs, whereas in the typical form the upper part of the head is decidedly rufescent (buffy) brown with broad, bluntly rounded feathers and white edges only on forehead and anterior crown. The silvery white superciliary streak so well pronounced in *P. a. argyrotis* is merely suggested by grayish margins; the malar stripe, silvery white in the Venezuelan birds, is dull brownish, intermixed with obsolete ashy grayish edges; hind neck and upper back are more profusely marked with buffy white (instead of pure white) lateral margins; the cinnamon tips to the rectrices more extensive and darker in tone, etc.

This well marked form, of which we have examined a good series, is peculiar to the Santa Marta district, being chiefly found in the subtropical zone between 3,000 and 6,000 feet.

⁽Anns. Carnegie Mus., 14, p. 174, 1922) also states that birds from the region to the southward (of Santa Marta) pertain to typical argyrotis. The status of the representative of this group in northeastern Venezuela (Neveré, State of Sucre) is uncertain (cf. Chapman, Amer. Mus. Novit., 191, p. 6, 1925).

(c) Penelope argyrotis barbata Chapman.

Penelope barbata Chapman, Amer. Mus. Nov., 18, p. 3, 1921—Tarajuacocha, Zaruma-Zuraguro Trail, Cordillera de Chilla, Prov. del Oro, Ecuador (type in American Museum of Natural History, New York).

Though readily distinguished by its feathered upper throat, the restriction of the grayish rather than white markings both above and below, and the darker general coloration, we cannot see in this bird anything but a strongly characterized race of *P. argyrotis*, which it represents in the subtropical and humid temperate zone of western Ecuador.¹

In addition to the type, we have seen two specimens from San Lucas in the collection of the British Museum.

Penelope montagnii

P. montagnii and P. sclateri, heretofore regarded as specifically different, constitute a single natural unit. While there seems to be a wide gap between the Colombian bird with its heavily feathered throat and dull coloration and the almost bare-throated, bright-colored Bolivian Guan, the Peruvian form, for which we provisionally adopt the name plumosa, is so exactly intermediate in its characters that the only logical conclusion leads to the specific association of the two groups.

The five races, into which this widely distributed species is divisible, are diffused over the upper subtropical and humid temperate zones of the Andes from western Venezuela and Colombia south to Bolivia.

(a) P. montagnii montagnii (Bonaparte).

Ortalida montagnii Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 875, 1856—"Nouvelle Grenade" = Colombia (type in Paris Museum).

The subspecific characters of this form are most typically developed in birds from the East Colombian Andes and the adjoining parts of Venezuela. The whole throat—with the sole exception of a small bare spot in the middle of the foreneck—is covered with dense soft feathers, which, like those on the sides of head and neck, are

¹ It probably ranges into northern Peru. Taczanowski's records of "P. sclateri" from Tambillo and Tamiapampa (P. Z. S. Lond., 1879, p. 243; 1882, p. 48) may refer to P. a. barbata, as is suggested by his subsequent note (in Orn. Pérou, 3, p. 269, 1886) that these North Peruvian examples differ by having long rufescent tips to the rectrices and the white lateral margins restricted to the forehead.

broadly margined all round with ashy gray; the superciliary region is similarly marked; the feathers of forehead and crown are laterally edged with gray; rump and upper tail coverts bright tawny more or less distinctly barred with dusky, this rufous area abruptly contrasted with the bronze brown of the back; lower breast and abdomen tawny or ochraceous-tawny, also more or less barred with dusky.

The type, which the senior author has carefully compared in the French National Collection, agrees in all essential particulars with specimens from the Eastern Andes of Colombia. It formed part of a series of native Bogotá skins presented by M. Lewy in 1850. Birds from the Mérida region of Venezuela are perfectly similar.

In the Central and Western Andes of Colombia, however, most of the characters specified above are subject to much variation, and in the extent of feathering on the throat as well as in the amount of gray edging on the head, the inhabitants of these parts of the Andes occupy an intermediate position between typical montagnii and the West Ecuadorian form. We have seen series from the Western Andes (Sancudo and La Leonera, Caldas) and the Central Cordillera (Santa Isabel, Quindio Andes) and also two skins from the sources of the Rio Patia (Almaguer and Valle de las Pappas). Among these thirteen specimens there are only four, two each from Caldas (La Leonera) and Santa Isabel, that may be termed typical montagnii. Another adult from the latter locality differs by having the bare jugular patch much larger, at the expense of the throatfeathering, which, though similar in structure to East Andean birds, shows mere traces of grayish edges. Three individuals from Caldas (Sancudo), one from Santa Isabel, and a female from Valle de las Pappas form the passage to the West Ecuadorian race by the reduction of the grayish margins in the superciliary region and on the sides of the head, and the Santa Isabel bird, furthermore, approaches it by having but a few olive grayish edges on forehead and anterior crown. Even closer are another adult from Santa Isabel and a male from Almaguer, which can only be distinguished from West Ecuadorian birds by the presence of a few scattered grayish tips on the lower edge of the feathered gular area. The belly is generally duller, less rufescent, though several West and Central Andean specimens are just as rufous-bellied as those from the Bogotá region.

Material examined.—Venezuela: La Cuchilla, Mérida, 4; Rio Mucujón, Mérida, 3.—Colombia: Páramo de Tamá, Santander, 2; "Bogotá," 2; Subia, Cundinamarca, 3; El Piñon, above Fusugasugá, 1; Santa Isabel, Quindio Andes, 6; Almaguer, Central Andes, Cauca, 1; Valle de las Pappas, Central Andes, Huila, 1; Sancudo, Western Andes, Caldas, 3; La Leonera, Western Andes, Caldas, 2.

(b) P. montagnii atrogularis subsp. nov.

Type from Alaspungo, Western Ecuador, in Collection of H. B. Conover, No. 7397. Adult male. Nov. 5, 1929. Olalla and Sons.

Adult.—Nearest to P. m. montagnii, but on average smaller; only chin and upper throat with scant bristle-like black feathering without any gray; malar region, auriculars, and superciliary region with mere traces of grayish edges; forehead only with faint lateral fringes of gray; posterior under parts less tawny; apical half of upper mandible (beyond nasal fossa) horn brown, not reddish.

Wing, 225-245; tail, 210-220, once 235; bill, 27-30 mm.

Range.—Subtropical and humid temperate zones of western Ecuador.

Remarks.—Thirteen specimens from various localities on the western slope of the Ecuadorian Andes, though connected by intergrades with P. m. montagnii as explained under the preceding heading, are so uniform inter se and present such marked divergencies from a series of East Colombian and Venezuelan skins that we have no alternative but to separate them subspecifically. striking character consists of the much scantier, bristle-like feathering of the throat, this area being at the same time less extensive and leaving consequently a much larger bare space on the median and lower portion of the gular region. The color of this feathered tract is dull black and shows at best-in two or three individualsa few tiny grayish tips near its lower end. The ashy gray edges on sides of head and neck, which form such a conspicuous feature in typical montagnii, are either wholly absent or barely suggested by some scattered obsolete dull grayish fringes, while there are only narrow brownish or dull grayish margins on the forehead of the crown. Breast and abdomen are as a rule duller, less rufescent than in montagnii, though sometimes just as bright rufous. The apical half of the maxilla is never reddish yellow, but decidedly horn brown, in two (possibly immature) birds blackish like the basal portion.

Material examined.—Western Ecuador: Alaspungo, 3; Aluguincho, 2; Huila, 1; Saloya, Prov. Pichincha, 3; Pucara, Prov. Pichincha, 1; Lloa-Urabuco, Prov. Pichincha, 3.

(c) P. montagnii brooki Chubb.

Penelope brooki Chubb, Bull. Brit. Orn. Cl., 38, p. 5, 1917—Baeza, eastern Ecuador (type in British Museum).

This race resembles P. m. atrogularis in scant, bristle-like, uniform black feathering on chin and upper throat, but differs by duller (about auburn) rump, somewhat more bronzy, greenish rather than brownish back, and particularly by having like typical montagnii, wide ashy gray edges on the sides of the head and neck. The feathers of the pileum are broadly margined laterally with whitish gray down to the upper back, and the whitish edges on foreneck and breast are even more prominent than in montagnii. The apical half of the maxilla is pale yellow abruptly contrasted with the blackish basal portion. Dimensions about the same as in P. m. atrogularis.

P. m. brooki is confined to eastern Ecuador. In addition to three adults from Cuyuja in the Conover Collection, one of us has examined two, including the type, from Baeza in the British Museum.

(d) P. montagnii plumosa Berlepsch and Stolzmann.

Penelope sclateri plumosa Berlepsch and Stolzmann, P. Z. S. Lond., 1902, II, p. 45, 1902—Maraynioc, Pariayacu, Dept. Junin, Peru (type in Warsaw Museum).

Birds from northern Peru are about half-way between montagnii, of eastern Colombia and Merida, and sclateri, of Bolivia. They differ from montagnii and the two Ecuadorian races by wholly blackish upper mandible; much more prominent, silvery white instead of grayish edges on pileum, hindneck and superciliary region; the possession of very distinct, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous white lateral margins on the mantle and upper wing coverts, and more conspicuous white lateral margins on the mantle and upper wing coverts.

¹ There is also in the Conover Collection an adult female from this locality which is a pure albino except for traces of rufous on the rump. The forehead and feathering on the upper throat are dull blackish, but this may be stain.

very white rather than grayish white markings on foreneck and breast, which moreover, do not meet at the tip, thus producing a more streaked effect. The rufous of the belly is brighter than in montagnii, though not so intense as in sclateri. From the latter they may be distinguished by having the chin and throat densely covered with soft fully-developed, ashy gray, centrally duskystreaked feathers as in montagnii, whereas the Bolivian form shows only scant blackish "bristles" on the upper portion of the otherwise bare throat. The bare space round the eye is less extensive, and the consequently broader feathered malar streak is edged with ashy gray as in montagnii, not with silvery white as in sclateri. Forehead, crown and superciliary region are as profusely margined with silvery white as in sclateri, but these markings extend unimpaired over nape, hindneck, and mantle, whereas in sclateri the posterior part of the crown and hindneck are uniform bronze green. On foreneck and breast the white lateral margins are likewise much broader and more numerous, and the abdomen is decidedly duller rufescent than in the Bolivian form. The general coloration of the body plumage is brownish bronze as in montagnii, much less greenish than in sclateri.

Measurement.—Adult males: wing, 240–245; tail, 240; bill, 26–28.
Adult female: wing, 235; tail, 245; bill, 26.

This form appears to be distributed over the greater part of eastern Peru.¹ Field Museum has two ♂♂ ad., one ♀ juv. from ten miles east of Molino-pampa, and a single adult female from the mountains east of Balsas, in northern Peru, all collected by W. H. Osgood and M. P. Anderson in May and June, 1912. Chapman² records P. m. plumosa from as far south as Toronboy, Urubamba Valley, Dept. Cuzco.

Our specimens do not altogether agree with the (rather short) original description, and direct comparison with topotypical material seems advisable.

(e) P. montagnii sclateri Gray.

Penelope sclateri Gray, P. Z. S. Lond., 28, p. 270, 1860—Bolivia (type in British Museum).

¹ Taczanowski's records of *P. sclateri* from Tambillo and Tamiapampa, however, probably refer to some other species. Cf. the footnote to *P. argyrotis barbata*.

² Bull. U. S. Nat. Mus. 117, p. 44, 1921.

This, the most southerly of the races of the group, differs from the others by much brighter bronze green dorsal surface, tail and breast; much more extensive bare space round the eye; naked throat and foreneck with "bristles" only on anterior portion; brighter tawny abdomen; more restricted tarsal feathering, hardly reaching beyond the heel-joint, etc.

There is some variation among the specimens before us, particularly with respect to the coloration of the rump, which is bright tawny chestnut strongly contrasted with the bronze green back in an adult bird from the Yungas of Cochabamba, but hardly more rufescent than the rest of the upper parts in a pair from Incachaca, Cochabamba. The type of *P. sclateri* collected by Thomas Bridges somewhere in Bolivia, which the senior author examined in the British Museum, agrees with the last-named variety.

P. m. sclateri is confined to western and central Bolivia.

Penelope purpurascens.

This group differs from the *P. montagnii* series by much greater dimensions, larger bill, much stronger as well as longer tarsi and toes, wholly bare throat and foreneck with merely some "bristles" on the chin, and much more extensive naked skin round the eye.

It comprises four races, its range extending from eastern Mexico south to western Ecuador and east to western Venezuela.

(a) P. purpurascens purpurascens Wagler.

Penelope purpurascens Wagler, Isis, 1830, Heft 11, p. 1110, 1830—Mexico, probably State of Vera Cruz (type in Munich Museum).

The typical form is widely distributed in eastern and southern Mexico and Guatemala. Within this range we have been unable to find any local variation.

(b) P. purpurascens aequatorialis Salvadori and Festa.¹

Penelope aequatorialis Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Rio Peripa, western Ecuador (type in Turin Museum).

¹ This is the bird long known as *P. cristata*, a name inapplicable to the present species, as has been first pointed out by Chubb (Ibis, 1919, p. 16). *Meleagris cristata* Linnaeus (Syst. Nat., 12th ed., 1, p. 269, 1766) is based on "Jacu-pema" of Marcgrave (Hist. Nat. Bras., p. 198), an incompletely described species of northeastern Brazil (possibly *P. jacucaca* Spix), and "The Quan or Guan" of Edwards (Nat. Hist. Bds., 1, p. 13, pl. 13), from "one of the Sugar Islands in the West Indies," an utterly unrecognizable creature. The name must be dropped as unidentifiable.

This form may be distinguished from the preceding one by chestnut rump and upper tail coverts, rufous abdomen, and the absence of the white lateral edges on hindneck, mantle and upper wing coverts, not to mention several minor differences.

Specimens from Costa Rica, Panama, western Colombia (Chocó), and western Ecuador agree perfectly. All have the inner remiges bronze green with very little, if any, coppery gloss, and we suspect that Salvadori and Festa, when separating *P. aequatorialis* from "*P. cristata*" on account of greenish wings, used a wrongly identified specimen of some other form, possibly *P. p. perspicax*, for comparison.

P. p. aequatorialis is an exclusive inhabitant of the lower tropical zone, and its altitudinal range does not reach beyond 3,000 feet. Its distributional area extends from Nicaragua through Costa Rica and Panama south along the Pacific coast of Colombia to western Ecuador.

In addition to a series from Costa Rica and Panama we have examined one specimen from Colombia (Chocó) and four from Ecuador (Bulún, Prov. Esmeraldas; Santo Domingo de los Coronados; Rio Peripa; Bajo Verde, Prov. Guayas).

(c) P. purpurascens perspicax Bangs

Penelope perspicax Bangs, Proc. Biol. Soc. Wash., 24, p. 187, 1911—San Luis, Bitaco Valley, Western Andes, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass.).

Closely similar to *P. p. aequatorialis*, but smaller, and differing, besides, by coppery auburn instead of bronze green inner remiges, more brownish, less bronze green, foreneck and breast, and the presence of narrow grayish edges on the scapulars and upper wing coverts, these markings being but slightly suggested in some individuals of *P. p. aequatorialis*.

The coppery auburn coloration of the exposed surface of the inner wing-feathers is a very constant feature in six specimens of $P.\ p.\ perspicax$, and is not approached by any of the numerous skins of $P.\ p.\ aequatorialis$, although the latter form sometimes shows a slight brownish tinge on the wings. The central pair of tail-feathers is uniform coppery auburn like the secondaries in two examples (San Antonio and Miraflores), while in the four others

they are duller reddish brown with a sepia brown tone prevailing on the tip and along the shaft.

Every one of the six specimens has distinct grayish lateral margins on upper back, lesser, and median wing-coverts. These are, as a rule, absent in *aequatorialis*, but very nearly as well-marked in a female from Bajo Verde, Ecuador, while traces are discernible in another female from Ecuador (Santo Domingo) and two males from Guanacaste, Costa Rica.

P. p. perspicax obviously is a zonal representative of P. p. aequatorialis, and replaces it in the Subtropical Zone of the Cordilleras bordering the upper Cauca Valley, being found in the Western Andes (Pavas; San Luis, Bitaco Valley; San Antonio; Clementina) as well as on the western slope of the Central Andes (Salento, West Quindio Andes; Miraflores, east of Palmira). All the localities are at altitudes of 4,400 to 7,000 feet.

Material examined.—Colombia, Cauca: San Antonio (alt. 7,000 ft.), 2; Clementina, 1; Miraflores, east of Palmira (alt. 6,800 ft.), 1; Salento, West Quindio Andes (alt. 7,000 ft.), 2.

(d) P. purpurascens brunnescens subsp. nov.

Type from Rio Cogollo, Perija, Zulia, Venezuela, in Collection of H. B. Conover, No. 54. Adult female. Feb. 23, 1920. W. H. Osgood and H. B. Conover.

Adult.—Very similar to P. p. aequatorialis, but pileum and upper back decidedly less greenish, about dull medal bronze; central tail-feathers reddish brown or coppery auburn as in P. p. perspicax; foreneck and breast duller and more brownish with hardly any olive green gloss, so conspicuous in P. p. aequatorialis. Wing, 340–350; tail, 310–315; bill, 32–35 mm.

Range.—Tropical zone of extreme western Venezuela, in State of Zulia (Rio Guachi; Montañas de Palmar; Rio Cogollo, Perija), and adjoining section of Colombia (Santa Marta region), extending up the Magdalena Valley as far as La Candela, in the Subtropical Zone.

Remarks.—This hitherto unrecognized race is to a certain extent intermediate between P. p. aequatorialis and P. p. perspicax. It agrees with the former in lacking the coppery auburn color on the inner remiges and the grayish edges on mantle and upper wing

coverts, but resembles the latter in the duller brownish anterior lower parts and the reddish or coppery middle rectrices.

Three adult males from La Candela, head of the Magdalena Valley, are perfectly identical with the Venezuelan examples as to coloration, but have considerably longer wings and tail. This apparent difference may, however, disappear in a larger series, inasmuch as the sex of the only Venezuelan "male" collected by S. Briceno Gabaldon at Montañas de Palmar, is not absolutely reliable. If we are right in referring the La Candela birds to the present form—and we do not see how they can be separated—it would seem that P. p. brunnescens, which the junior author shot in the low tropical country south and west of Lake Maracaibo, Zulia, is not strictly limited to low-lying districts, but has rather a wide range in eastern Colombia, where it enters even the Subtropical Zone at the head of the Magdalena Valley.

Measurements.

	Wing	Tail
Three adult males from Costa Rica (aequatorialis)	378-392	360-375
Three adult females from Ecuador (aequatorialis)3	340-370	325-380
Three adult males from Columbia (perspicax)	310-332	330
Three adult females from Colombia (perspicax)	295	300-315
Three adult males from La Candela (brunnescens) . 3	360-382	360-380
Two adult females from Venezuela (brunnescens) 3	340, 345	315
Three adult males from Santa Marta (brunnescens) 3	355-360	320-340
Two adult females from Santa Marta (brunnescens) .3	35, 355	305, 340

Penelope jacquacu.1

This species is nearly allied to, and possibly conspecific with, the *P. purpurascens* group. Compared with the three South American races, it is about the size of *P. p. perspicax*, but has the rump and tail-coverts brownish or greenish bronze, not appreciably different from the color of the back, instead of rich chestnut strongly contrasted with the rest of the dorsal plumage. Besides, the lateral edges to the upper wing coverts and scapulars are wider as well as more whitish, while the under parts are more rufescent. The exposed surface of the inner wing-feathers is more as in aequatoralis, never coppery auburn. The extent of the naked skin on throat and sides of head is the same in the two species, and in structure of the

¹ Native name jacquacu.

crown-feathers typical jacquacu does not differ either from aequatoralis or perspicax. We admit that, considering the agreement in dimensions and morphological features, the color-differences are comparatively slight, and fully expect that, when more material becomes available, they will prove to be of not more than subspecific value.

P. jacquacu is divisible into two races, regarding which we wish to offer a few remarks.

(a) P. jacquacu jacquacu Spix.

Penelope jacquacu Spix, Av. Bras. Sp. Nov., 2, p. 52, pl. 68, 1825—"in sylvis flum. Solimoëns," Brazil (type in Munich Museum).

In the typical form the lengthened crown-feathers are broad and bluntly rounded at the tip, only the forehead, anterior crown, and superciliary region being narrowly edged with pale grayish.

It ranges from the Amazonian slope of the East Colombian Andes through Ecuador and Peru south to northern Bolivia (lower Beni), and through western Brazil east to the Rio Madeira.

Two specimens from the Rio Madeira (Salto do Girão) are larger, thus approaching the next form, but typical in coloration.

We have examined a series from eastern Ecuador and various localities in Peru and western Brazil.

(b) P. jacquacu speciosa Topp.

Penelope speciosa Todd, Proc. Biol. Soc. Wash., 28, p. 82, 1915—Rio Surutú, Prov. del Sara, Dept. Santa Cruz, Bolivia (type in Carnegie Museum).

This race differs by having the crown-feathers decidedly narrower, apically more pointed, and on both sides much more prominently edged with grayish white. The superciliary region is also more profusely margined with whitish; the white edges to the upper wing coverts are wider, the feathered malar stripe more or less intermixed with ashy gray.

Burmeister (P. Z. S. Lond., 1871, p. 701) appears to have been the first to apply to this well-marked form the name *P. boliviana* Reichenbach, when discussing some specimens received from Santa Cruz de la Sierra, and Chapman (Bull. U. S. Nat. Mus., 117, p. 44, 1921) is inclined to follow this nomenclature.

¹ Dabbene (Physis, 4, p. 104, 1918; El Hornero, 1, p. 180, 1918) has shown them to be referable to P. speciosa.

However, we are firmly convinced that Reichenbach¹ merely renamed typical *P. jacquacu*, as results from his description and figures, however wretched the latter are. By some unaccountable mistake various birds collected by the Polish naturalist J. Warscewicz during his travels in northern Peru, were labeled as coming from Bolivia,² and such doubtless also happened in the case of *P. boliviana*. The type unfortunately does not exist any longer in the Dresden Museum, as we are informed by Dr. A. Jacobi.

P. j. speciosa inhabits the Tropical Zone of eastern Bolivia (Rio Chimoré, north side of Sierra de Cochabamba; Buenavista, Rio Surutú, and Santa Cruz de la Sierra, Dept. Santa Cruz).

Material examined.—Bolivia: Rio Surutú (the type) 1; Buenavista. 3.

Penelope ortoni.

Penelope ortoni Salvin, Ibis, (3), 4, p. 325, 1874—Mindo, western Ecuador (type in Vassar College, Poughkeepsie, N. Y.).

This is rather an isolated species, characterized by the complete absence of any rufescent tone on the lower parts, the abdomen being sepia brown like the tibial feathers and under tail coverts and very little different from the slightly more bronzy breast, and the conspicuous white lateral edges on the under surface extending down to the belly. The small size, the uniform dark brown pileum, malar region, and sides of neck, and the lack of grayish edges on mantle and wing coverts are other striking features.

P. ortoni is restricted to the Tropical Zone of western Colombia and western Ecuador.

Field Museum, Chicago.

¹ Vollst. Naturg., Tauben, p. 151, pl. 271, figs. 2493–94, 1862.—This is the first valid introduction of the name, *P. boliviana* Bonaparte (Compt. Rend. Acad. Sci., Paris, 42, p. 877, 1856) being an absolute *nomen nudum*.

² We call attention only to certain species of *Diphlogoena*, ascribed to "Bolivia," which are found exclusively in northern Peru,